REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated June 29, 2006 has been received and its contents carefully reviewed.

Claims 27-34 are pending. Reexamination and reconsideration of the pending claims are respectfully requested.

In the Office Action, claims 27-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,147,667 to Yamazaki et al. (hereinafter "Yamazaki") in view of Single-Crystal Si-Films via a Low Substrate Temperature Excimer-Laser Crystallization Method by Sposili et al. (hereinafter "Sposili").

The rejection of claims 27-34 as being unpatentable over Yamazaki in view of Sposili is respectfully traversed and reconsideration is requested.

Claim 27 is allowable over Yamazaki in view of Sposili in that the structure of claim 27 recites a combination of elements including, for example, "wherein the controller unit includes an active layer in which silicon grains have a length beyond a single-pulse lateral growth distance." None of the cited references, singly or in combination, teaches or suggests at least these features of the claimed invention. Yamazaki merely discloses a well-known method of silicon crystallization. That is, an amorphous silicon layer is first grown by conventional methods, such as CVD methods or sputtering methods. *See* column 6, lines 19-21. Crystallization is then performed to crystallize the amorphous silicon layer by using additional conventional methods. That is, a metal, such as nickel, is added into the amorphous silicon film. *See* column 6, lines 29-36. Applicant agrees with the Examiner's statement that Yamazaki does not disclose the controller unit including an active layer in which silicon grains have a length beyond a single pulse lateral growth distance. Furthermore, there is no suggestion in Yamazaki that the "silicon grains" are capable of having "a length beyond a single-pulse lateral growth distance."

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Applicant respectfully submits Sposili fails to cure the deficiencies of Yamazaki. Sposili discloses a sequential lateral solidification (SLS) process. Applicant respectfully submits that the SLS process of Sposili would not work in the method of Yamazaki and thus would not produce "silicon grains" that "have a length beyond a single-pulse lateral growth distance" in a "liquid crystal display device." SLS is performed at a relatively low heat, such that the temperature does not affect an underlying substrate. The conventional crystallization method, used by Yamazaki as discussed above, is performed at a high temperature. This method is incapable of producing "silicon grains" that "have a length beyond a single-pulse lateral growth distance." Because the temperature of the Yamazaki process is much higher than the temperature of the Sposili process, the Sposili process would not work in the Yamazaki process to produce "silicon grains" that "have a length beyond a single-pulse lateral growth distance" in a "liquid crystal display device."

Furthermore, Applicant respectfully submits that there is no motivation for one of ordinary skill in the art to combine Yamazaki and Sposili and arrive at the claimed invention with any reasonable expectation of success. The use of SLS was not well-known to one of ordinary skill in the art at the time of the present invention. This is evidenced by the Sposili article itself. The Sposili article was published in 1997 and the filing date of the foreign priority document of the present invention is in January 1998. That is, at the time of the invention, SLS technology was new and relatively unknown. One of ordinary skill in the art, would not have been familiar with SLS technology or with the concept that SLS produces "silicon grains" that "have a length beyond a single-pulse lateral growth distance." Thus, one of ordinary skill in the art would not know to look to Sposili and apply the SLS technology of Sposili to form a liquid crystal display device. Accordingly, applying SLS technology to form a liquid crystal display device is novel and unobvious.

Applicant further respectfully submits that the motivation to combine the references comes from the present invention, and not from the cited references, which is impermissible. At the time of the present invention, SLS technology was brand new. Applicant respectfully submits that the Examiner is improperly using hindsight to establish motivation to use SLS technology in forming a "liquid crystal display device" having "silicon grains" that "have a

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length beyond a single-pulse lateral growth distance." Accordingly, because the cited references fail to teach the features of claim 27, Applicant respectfully submits that claim 27 and claims 28-34, which depend therefrom, are allowable over Yamazaki in view of Sposili.

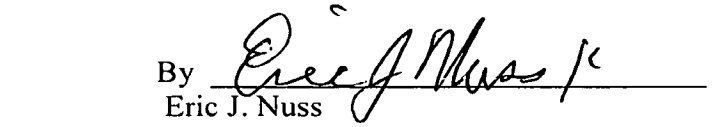
Applicants believe the foregoing remarks place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: September 29, 2006

Respectfully submitted,

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